## ISSUE SLIP STAPLE AREA (for additional cross references)

| POSITION                  | INITIALS    | ID NO. | DATE |
|---------------------------|-------------|--------|------|
|                           |             |        |      |
| FEE DETERMINATION         | <del></del> |        | 1/5  |
| O.I.P.E. CLASSIFIER       | U           |        | 4//  |
| FORMALITY REVIEW          |             |        |      |
| RESPONSE FORMALITY REVIEW |             |        |      |
| 7                         |             |        |      |

## **INDEX OF CLAIMS**

| , | Rejected                   | N | Non-elected  |
|---|----------------------------|---|--------------|
|   | Allowed                    | l | Interference |
|   | (Through numeral) Canceled | Α | Appeal       |
|   | Restricted                 | 0 | Objected     |

|          |          |         |              |          |   |   |           | ÷        |          | ·<br>· · · · |   |   |   |    |          |          |
|----------|----------|---------|--------------|----------|---|---|-----------|----------|----------|--------------|---|---|---|----|----------|----------|
|          |          |         |              |          |   |   |           |          |          |              | _ |   |   |    |          | _        |
| Cla      | im       | _       | _            |          | _ |   | D         | at       | <u>e</u> | _            | _ |   | _ |    | -r       | 4        |
| Finat    | Original | 2 38 04 |              |          |   |   |           |          |          |              |   |   |   |    |          |          |
| ۳        | g        | 7       | _            | -        | + |   | t         | -        |          | +            |   | ╁ | - |    | +        | ┨        |
|          | 2        | 1       |              | _        | + | - | t         | _        | _        | 1            | _ | + |   | _  | †        | ㅓ        |
|          | 3        | 1       |              | H        | + |   | t         | _        |          | 1            | _ | t |   | _  | †        |          |
|          | 4        | 1       |              | ┝        | 7 |   | t         |          | H        | 7            | _ | ✝ |   |    | 1        |          |
|          | 5        | 1       |              | Г        | 7 |   | Ť         |          | Г        | ٦            |   | 1 |   |    | 1        |          |
|          | 6        | 1       |              | Γ        |   |   | Ι         |          |          |              |   | Ι |   |    | 1        |          |
|          | 7        | 1       |              |          |   |   |           |          | L        |              | _ | 1 |   | L  | 4        |          |
| L        | 8        | J       |              | L        |   |   | 1         |          | L        | _            | _ | 1 |   | L  | 4        |          |
| -        | 9        | 4       | _            | Ļ        | 4 |   | +         |          | L        | _            | L | + |   | L  | -        |          |
| $\vdash$ | 100      | J.      |              | L        | _ | _ | +         |          | ŀ        | _            | ┞ | + |   | H  | 4        | _        |
| <u> </u> | 12       | 1       |              | ╀        | _ | _ | +         | _        | ŀ        |              | H | + |   | ┝  | $\dashv$ |          |
| $\vdash$ | 13       |         | $\vdash$     | ╁        | - | - | +         |          | ╁        |              | H | + |   | +  | +        |          |
| $\vdash$ | 14       |         | $\vdash$     | +        | _ | H | $\dagger$ |          | t        |              | t | + |   | t  | 1        | -        |
| Ι-       | 15       |         | T            | t        | _ | Т | †         |          | t        | _            | Γ | 7 |   | T  | 7        |          |
| 厂        | 16       | _       | Т            | İ        |   | Г | 1         |          | Ť        | _            |   |   |   | T  |          |          |
|          | 17       |         |              | I        |   |   |           |          | I        |              |   |   |   | Γ  |          |          |
|          | 18       | -14     |              | I        |   |   |           |          | I        | _            | L |   |   | 1  | _        |          |
|          | 19       | J       | L            | 1        |   | L | 1         |          | 1        |              | Ļ | _ | _ | ļ  | _        | Ŀ        |
| L        | 20       | L       | L            |          | _ | L |           |          | 1        | _            | L |   |   | 1  |          | L        |
|          | 21       | -       | 1            | 1        |   | L | 4         |          | 1        | _            | 1 |   |   | 1  | _        | _        |
| L        | 22       |         | ↓_           | ļ        | _ | Ļ | 4         |          | 1        |              | Ļ | _ | _ | 1  | _        | _        |
| L        | 23       | -       | ┼-           | 4        |   | ŀ | 4         | _        | +        |              | ╀ | 4 |   | +  |          | -        |
| -        | 24       | +       | ╀╌           | +        | _ | ╀ | 4         |          | +        |              | ╀ | - | _ | +  | _        | ├        |
| $\vdash$ | 25       | -       | +            | ╁        | - | H | $\dashv$  |          | +        | -            | ╁ | _ |   | +  |          | $\vdash$ |
| $\vdash$ | 27       | -       | +-           | †        |   | ╁ | +         |          | †        |              | t | - |   | t  |          | 1-       |
| $\vdash$ | 28       | -       | +            | 1        |   | t | ٦         | _        | †        |              | t | _ |   | Ť  | _        |          |
|          | 29       | 1       | T            | Ť        | _ | T |           |          | 1        |              | T |   | Г |    |          |          |
|          | 30       | )       |              | I        |   | Ι |           |          |          |              | Ι |   |   |    | _        |          |
|          | 3        | -       |              | 1        |   | L |           | _        | 1        | _            | 1 | _ | L | 1  |          | Ļ.       |
| $\perp$  | 32       | _       | ╀            | 4        |   | ļ | _         | L        | 4        | _            | 4 |   | _ | 4  | _        | ╀        |
| $\vdash$ | 3        | -       | +-           | 4        |   | 1 |           | -        | 4        | _            | + | _ | - | +  |          | ╂        |
| -        | 34       | _       | +            | +        |   | + | _         | $\vdash$ | 4        |              | + |   | H | +  | -        | +        |
| +        | 36       | _1      | +            | +        |   | + |           | $\vdash$ | +        |              | + | - | H | +  |          | ╁        |
| 1        | 3        | -       | +            | +        | _ | t |           | -        | +        |              | † | _ | t | +  | _        | t        |
| ₺        | 38       | _       | +            | +        | _ | t | _         |          | 1        | _            | † |   | T | 1  |          | T        |
|          | 39       | 9 .     | T            | 1        | _ | Ť | _         | Γ        |          |              | 1 |   | Γ | ]  |          | Ι        |
| Г        | 41       | p       |              | 1        |   | T |           |          | ٦        |              | 1 | _ | Γ | _] |          | Ι        |
|          | 4        | 1       | T            | 1        |   | 1 |           | Γ        |          |              | J |   |   |    |          |          |
|          | 42       |         | I            |          |   | I | _         |          |          |              | I |   |   |    |          | L        |
|          | 4        | -       | I            | _        |   | 1 | _         | Ĺ        |          | L            | 1 | _ | L | _  |          | ╀        |
| L        | 4        | -       | 1            | _        | _ | 1 |           | L        |          | L            | 1 | _ | Ļ | 4  | _        | 1        |
| <u> </u> | 4        | -       | $\downarrow$ | 4        | _ | 4 |           | ╀        |          | -            | 4 |   | 1 | _  | _        | 4-       |
| $\vdash$ | 4        | _       | +            | -        |   | + |           | ╀        | _        | -            | 4 |   | ╀ | 4  |          | +        |
| $\vdash$ | 4        |         | +            | -        | _ | + |           | ╀        | _        | -            | 4 | _ | ╁ | 4  | H        | +        |
| -        | 4        | _       | +            | $\dashv$ | _ | + |           | ۲        |          | H            | + | _ | + | -  | $\vdash$ | +        |
| $\vdash$ |          | <u></u> | +            | $\dashv$ |   | + | _         | t        | _        | H            | + |   | † | _  | Т        | 士        |

| Cla        | im       |                  |    |           |              |   | C | at        | е |          |           |   |          | _            |          |   |
|------------|----------|------------------|----|-----------|--------------|---|---|-----------|---|----------|-----------|---|----------|--------------|----------|---|
|            | Original |                  |    |           |              |   |   |           |   |          |           |   |          |              |          |   |
| Final      | ō        |                  |    | L         |              |   | L |           | L | _        |           | L | 1        |              | L        | ╛ |
|            | 51       |                  |    | L         | $\downarrow$ |   | ļ |           | L | _        |           | L | 4        |              | L        | 4 |
| ļ          | 52       | _                |    | L         | 4            |   | 1 |           | L | 4        |           | Ļ | 4        |              | L        | _ |
| <u> </u>   | 53       | _                |    | -         | 4            |   | 1 | _         | L | 4        |           | - | +        |              | L        | 4 |
| $\vdash$   | 54<br>55 | -                |    | ╀         | 4            | _ | ł |           | ┝ | -        |           | ┞ | +        |              | H        | ┥ |
| $\vdash$   | 56       | _                | _  | ╁         | $\dashv$     | _ | + | _         | H | ┥        |           | t | +        |              | H        | - |
| $\vdash$   | 57       |                  |    | ╁         | -            |   | t | -         | t | 1        |           | t | 1        |              | H        | _ |
| $\vdash$   | 58       | _                | Г  | t         |              |   | t | _         | T | T        |           | T |          |              | T        |   |
|            | 59       |                  |    | Ţ         |              |   | 1 |           |   |          |           |   |          |              |          |   |
|            | 60       |                  |    |           |              |   | I |           | Ţ |          |           | L |          |              | L        |   |
|            | 61       | <u> </u>         | L  | ╽         | _            | L | 1 | _         | ļ | _        | _         | 1 | _        |              | Ļ        |   |
| <u>_</u>   | 62       | _                | _  | +         |              | L | 4 |           | ļ | _        | ļ         | ╀ | _        |              | ╀        | _ |
| $\vdash$   | 63<br>64 | _                | ┞  | ╀         | _            | ŀ | + |           | ╀ |          | ┝         | ╀ | $\dashv$ |              | ╀        | _ |
| -          | 65       |                  | ⊢  | +         | _            | H | ╁ | -         | + |          | ┝         | + | ۲        |              | t        | _ |
| -          | 66       | -                | -  | $\dagger$ |              | H | + | -         | t |          | H         | † | ٦        |              | t        | _ |
| -          | 67       | $\vdash$         | t  | +         |              | Г | 1 | _         | Ť | _        |           | † | _        |              | T        |   |
|            | 68       |                  |    |           |              |   |   |           | Ī |          |           | I |          |              | I        |   |
|            | 69       |                  | L  |           |              | L |   |           |   |          |           | 1 |          | L            | 1        |   |
|            | 70       |                  |    |           |              | L | ╛ |           | 1 |          | L         |   |          |              | 1        |   |
|            | 71       |                  | L  | 1         |              |   | 4 |           | 1 |          | _         | 4 |          | L            | 1        |   |
| <u> </u> _ | 72       |                  | ┡  | 4         |              | Ļ | _ |           | 4 |          | ļ.        | + | _        | L            | +        |   |
| -          | 73       | +                | +- | +         | _            | ╀ | - |           | + | _        | ╀         | + |          | <del> </del> | +        | _ |
| -          | 75       |                  | ╀  | +         |              | ╁ | ۲ | _         | + |          | ╁         | + |          | $\vdash$     | $^{+}$   |   |
| $\vdash$   | 76       | -                | ╁  | +         | _            | t | _ | -         | † |          | ╁         | † | _        | t            | †        | _ |
| -          | 77       |                  | T  | T         | _            | T |   | Г         | 1 |          | T         | 1 |          | Τ            | 1        | _ |
| Г          | 78       |                  |    |           |              | Γ |   |           |   |          |           | I |          |              | I        |   |
|            | 79       | +                | L  | 1         |              | I | _ |           | 1 |          | L         | 1 |          | L            | 1        |   |
| L          | 80       |                  | ╀  | 4         |              | ļ |   | L         | 4 |          | 1         | 4 |          | ╀            | 4        | _ |
| -          | 81       | +-               | ╀  | 4         |              | - | _ | ┞         | 4 |          | ╊         | + |          | ╁╴           | +        | _ |
| $\vdash$   | 82       | ~ <del>-</del> - | +  | -         |              | ╁ | _ | ┝         | + |          | ╀         | + |          | ╁            | +        | - |
| ┢          | 84       | -                | ╁  | $\dashv$  |              | ╁ | - | H         | 1 | _        | ╁         | 1 |          | t            | †        |   |
| F          | 85       |                  | t  | 7         | _            | t |   | 1         | 1 | _        | T         | 7 |          | t            | 7        |   |
| F          | 86       | 3                | T  |           | _            | Ť | _ |           |   |          |           |   |          |              |          |   |
|            | 87       | 7                | Ι  |           |              | I |   |           |   |          | I         |   |          | L            |          |   |
|            | 88       | -                | 1  |           |              | 1 |   | L         |   | L        | 1         |   |          | 1            | 4        |   |
| L          | 89       | -                | +  | _         |              | 1 | _ | L         |   |          | ╀         | 4 |          | +            | -        |   |
| L          | 90       | _                | +  | 4         | _            | + |   | ┡         | _ | Ļ.       | +         | 4 |          | +            | 4        | _ |
| 1          | 9        |                  | -  |           | L            | + | _ | ╀         | 4 | -        | +         | 4 | _        | +            | 4        | _ |
| -          | 92       | -                | +  | _         | $\vdash$     | + | _ | +         | - | -        | +         | 4 | _        | +            | $\dashv$ |   |
| -          | 9        | -                | +  |           | H            | + | _ | t         | ٠ | $\vdash$ | +         | - | -        | +            | +        | H |
| +          | 9        | _                | +  | _         | H            | + | - | $\dagger$ |   | H        | $\dagger$ |   | $\vdash$ | $\dagger$    | +        | H |
| -          | 9        | -                | 1  |           |              | 1 |   | 1         |   |          | 1         |   |          | 1            |          |   |
|            | 9        | 7                | 1  |           |              | 1 |   | Ī         |   |          | Ī         |   |          | I            |          |   |
|            | 9        |                  | 1  | _         |              | I |   | I         |   | C        | I         |   |          | Ţ            |          | L |
| Γ          | 9        | 9                | ľ  |           | آ            | Т |   | Γ         |   | Ĺ        | - 1       |   | 1        | 1            |          | ĺ |

| Cla      |          |               |              |           |   | _            | _        |          | _ |          |              |           |          |              |           | _    |
|----------|----------|---------------|--------------|-----------|---|--------------|----------|----------|---|----------|--------------|-----------|----------|--------------|-----------|------|
|          | ıim      |               |              |           | _ |              | D        | at       | 0 |          |              |           |          |              |           | _    |
|          | al       |               |              |           | I |              |          | 1        |   |          |              | ŀ         | 1        |              |           |      |
| 펼        | Original |               | l            |           |   |              |          |          |   | ١        |              |           | ١        | -            |           |      |
| Final    | ŏ        |               | 1            |           |   |              |          |          |   |          |              |           |          |              |           |      |
|          | 101      |               |              |           | Τ |              |          | ٦        |   | Т        |              |           | T        |              |           |      |
| _        | 102      | $\Box$        |              |           | T |              |          | 7        |   | T        |              | Γ         | ٦        |              |           |      |
|          | 103      |               |              | _         | T |              |          |          | _ | 7        |              |           | 7        |              |           | ٦    |
|          | 104      | 1 1.          | _            | _         | t |              | r        |          |   | 7        | -            | T         | 1        |              |           | 7    |
|          | 105      |               |              |           | t |              | r        |          |   | 7        |              | Γ         | T        |              |           | 1    |
| _        | 106      |               |              |           | t |              | r        |          |   | 1        |              | T         | T        |              | Т         |      |
| _        | 107      |               | _            |           | t | _            | r        | ٦        |   | T        |              | T         | ٦        |              | Г         | Ī    |
|          | 108      |               |              | _         | t |              | T        |          |   | 7        | -            | T         | ┪        |              | Г         | _    |
|          | 109      | -             | _            | _         | † |              | T        |          | Г | T        |              | T         |          |              |           | _    |
|          | 110      | -             | _            | -         | † |              | T        | _        | r | ┪        |              | t         | ٦        |              |           | _    |
| _        | 111      |               | _            | ┝         | † |              | t        |          | Г |          |              | †         |          |              | -         | _    |
| _        | 112      | -             | -            | -         | † |              | t        |          | ┢ |          |              | +         | _        |              | H         | _    |
| _        | 113      |               | <u> </u>     | Н         | † | _            | t        | _        | r |          |              | t         | _        |              | T         | _    |
| _        | 114      |               |              | Н         | + |              | t        | _        | H | -        |              | ┪         | _        | -            | t         | _    |
| 一        | 115      |               | -            | ┪         | † |              | t        | _        | H | _        | _            | +         |          |              | ┢         | •••• |
| $\vdash$ | 116      |               | -            | ┝         | + |              | t        | _        | H | -        | -            | t         | _        | H            | ┢         | _    |
| H        | 117      |               | $\vdash$     | -         | + |              | t        | _        | t |          |              | †         | _        |              | t         | _    |
| ┢        | 118      |               |              | 十         | 1 | _            | t        | _        | t |          | Н            | †         |          | Г            | t         | _    |
| -        | 119      |               | ╁╌           | t         | 7 |              | t        |          | t | _        | H            | t         | _        | -            | t         | _    |
| ┝        | 120      | +             | ┪            | ┢         | 7 |              | t        |          | t |          | H            | t         | -        | H            | t         | -    |
| ⊢        | 12       | -             | -            | ╁         | ┥ |              | $^{+}$   | _        | ╁ | _        | -            | ÷         |          | ┢            | ╁         | -    |
| ┝        | 12       | <del></del>   |              | ╁         | ┨ | _            | +        |          | ł | _        | ╁            | +         |          | ├-           | ╁         | -    |
| ┝        | 12       |               | -            | ╁         | - |              | +        |          | ╁ |          | -            | $^{+}$    |          | ├-           | ╁╴        | -    |
| ⊢        | 12       | _             | ╁            | ╁         | - |              | +        | -        | + | _        | ╁            | +         | _        | ┢            | ╁╴        | -    |
| ┝        | 12       |               | $\vdash$     | +         | - | _            | +        |          | t | -        | H            | $\dagger$ |          | ╁╴           | t         | -    |
| -        | 12       | <del></del> - | +-           | ╁         | - | <del> </del> | †        |          | t | _        | ┪            | t         |          | +-           | t         | -    |
| ┝        | 12       | _             | +-           | t         | - | -            | +        | _        | t |          | <del> </del> | +         |          | t            | ╁         | -    |
| $\vdash$ | 12       |               | ┢            | t         | _ | ┢            | †        | -        | t |          | H            | +         | _        | t            | t         | _    |
| $\vdash$ | 12       | _             | +            | +         | - |              | +        | _        | t | -        | t            | +         | _        | ╁╴           | t         | -    |
| $\vdash$ | 13       |               | ╁            | 十         |   | H            | +        |          | † | -        | ╁            | †         |          | -            | t         | -    |
| -        | 13       | $\rightarrow$ | ╁╌           | t         |   | ┝            | †        |          | t |          | ╁            | †         |          | †-           | +         | -    |
| $\vdash$ | 13       |               | ╁            | ╁         |   | ┪            | +        | _        | + |          | t            | +         |          | t            | t         | -    |
| $\vdash$ | 13       |               | ╁            | ╁         |   | ┢            | 1        |          | t | _        | t            | +         |          | t            | t         | -    |
| $\vdash$ | 13       |               | ╁            | †         |   | ۲            | +        | _        | + |          | t            | +         | _        | $^{\dagger}$ | +         | -    |
| $\vdash$ | 13       |               | +            | $\dagger$ | - | +            | 1        |          | + | _        | $^{+}$       | +         | _        | $^{\dagger}$ | +         | _    |
| -        | 13       |               | +            | +         | - | t            | 1        |          | + |          | ✝            | $\forall$ |          | T            | $\dagger$ | -    |
| H        | 13       | _             | t            | +         | _ | t            | $\dashv$ |          | + | -        | t            | +         | _        | $\dagger$    | †         | _    |
| $\vdash$ | 13       |               | t            | +         | _ | t            | $\dashv$ | _        | † | _        | ٢            | 7         | _        | T            | $\dagger$ | _    |
| $\vdash$ | 13       | _             | +            | †         |   | ۲            | 1        |          | 1 | _        | t            | +         |          | t            | +         | -    |
| +        | 14       |               | $^{\dagger}$ | +         | - | t            | ┪        |          | 7 | _        | t            | 1         |          | T            | †         | _    |
| H        |          | 41            | +            | +         |   | +            | 4        | -        | + |          | +            | -         |          | +            | +         | _    |
| H        |          | 12            | +-           | +         |   | ╀            | _        | -        | + | _        | +            | 4         | _        | +            | +         | -    |
| +        |          | 13            | +-           | +         | _ | +            | -        | H        | + |          | ╀            | $\dashv$  | _        | +-           | +         | -    |
| +        |          | -             | +            | +         |   | +            | 4        | $\vdash$ | 4 | _        | ╁            | $\dashv$  |          | ╁            | +         | _    |
| +        |          | 44            | +            | +         |   | ╀            | 4        | $\vdash$ | 4 | _        | +            | $\dashv$  | -        | ╁            | +         | _    |
| 1        | _        | 15            | +            | +         |   | ╀            | _        | $\vdash$ | 4 | -        | +            | 4         | H        | +            | +         | _    |
| -        |          | 16            | +            | +         | _ | +            |          | $\vdash$ | 4 | _        | +            | 4         | H        | +            | +         | _    |
| 1        |          | 47            | +            | 4         |   | ╀            | _        | ⊢        | 4 | _        | +            | 4         | ļ        | +            | +         |      |
| ŀ        |          | 48            | +            | +         | _ | +            |          | $\vdash$ | 4 | $\vdash$ | +            | -         | $\vdash$ | +            | +         | _    |
| L        | _11      | 49            | 4            | 4         | _ | 1            | _        | L        |   | L        | ┸            | _         | L        | 4-           | 4         | _    |

If more than 150 claims or 10 actions staple additional sheet here